ON THE GENERIC POSITION OF SONORELLA WOLCOTTIANA BARTSCH.

BY H. A. PILSBRY.

Sonorella wolcottiana, described from Palm Springs, a health resort at the foot of the San Jacinto Mountains, not far from the Southern Pacific Railroad, has been known hitherto by the original specimens collected by Mrs. H. T. Wolcott in 1903 and by a small series taken by Messrs. Morgan Hebard and J. A. G. Rehn in 1910. Unfortunately, all of these were dead shells. From the close correspondence of the shell to the Sonorellas of Arizona and New Mexico, the species was naturally referred to that genus. The receipt of living specimens taken early in March by Dr. Emmet Rixford of San Francisco, enables me to transfer it to the genus *Micrarionta*, chiefly known by coast Helices, such as *facta, gabbi, kelleti, stearnsiana*, etc. It appears that a group of this genus has been adapted to the arid interior, where they have assumed the appearance of the desert group *Sonorella*.

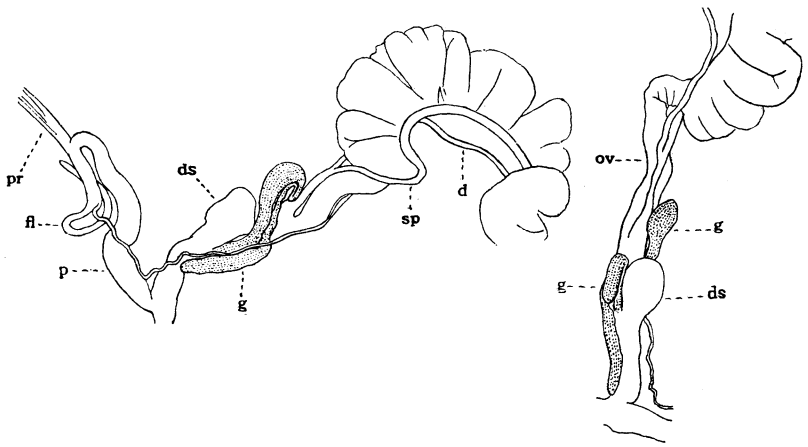

Fig. 1.—Genitalia of *Micrarionta wolcottiana*. In the right figure another view of the ♀ organs. *d*, Diverticulum of the spermathecal duct; *ds*, dart sack; *fl*, flagellum, *g*, mucous glands; *ov*, oviduct; *p*, penis; *pr*, retractor of the penis; *sp*, duct of the spermatheca. The mucous glands are shaded to show their forms more distinctly.

The reproductive organs are illustrated for comparison with *Sonorella* and other Micrariontas. It will be seen that on each side of the

base of the dart sack, the duct of a mucous gland arises. Each duct ascends and expands into a bulb, then is contracted, recurved upon itself, descending, becoming flattened in form of a long, thin-walled gland adhering to the vagina. For the sake of distinctness, these glands and their ducts are shaded in the figures. As usual in the genus, one of the mucous glands rises high over the dart sack, the other being lower, and concealed behind the dart sack in the left hand figure. The spermatheca has an extremely long, thin duct, which bears a long, slender diverticulum. The specimens did not pull well, and the upper part of the oviduct, the albumen gland, spermatheca and ovotestis were broken off.

Length of penis	6.5	mm.
" " epiphallus	5	"
" " flagellum	7	"
" " vagina	7	"
" " dart sack	3	"

Doctor Rixford writes as follows: "About the first of March I spent a few days at Palm Springs, Cal., on the eastern edge of San Jacinto Mountain, and had opportunity to get a few snails. I found only the one variety and no other shells except a small *Physa* which I take to be a common *Physa* of the West Coast. The Helix I have not been able to identify. Judging by the number of dead shells, it must be very numerous in that region, but because it had rained shortly before my visit the live shells were much scattered, having left their summer quarters. On the under surfaces of rocks I found markings of large colonies. In this region the rainfall is only an inch or so a year and the summer temperature much above 100 F. The rocks are granitic."